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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,745	11/03/2005	Mark Patrick	20007.1USWO	4551
52835 7590 08/01/2008 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER				
LAUX, JESSICA L				
ART UNIT		PAPER NUMBER		
3635				
MAIL DATE		DELIVERY MODE		
08/01/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,745

Applicant(s)

PATRICK, MARK

Examiner

JESSICA LAUX

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CIS-100)
- Paper No(s)/Mail Date 11/3/05

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and depending is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites "connectors, typically in the form of...", which is indefinite because the meets and bounds of the claim are unclear as the term typically is indefinite.

The claim also recites "the conical-type failure surface or surfaces as described herein...", which is indefinite as there is lack of antecedent basis for the conical-type failure surface and the entire limitation lacks meets and bounds and it is unclear to what the claim is referring and where the "description" is.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 9606994.

Claims 1: WO 9606884 discloses a composite beam which includes:

(a) a horizontal beam (5);

(b) a composite slab(Abstract) that is positioned on and supported by the beam;

and

(c) a plurality of shear connectors (15), typically in the form of headed studs, embedded in the cast concrete and welded to the beam thereby to connect the composite slab to the beam; and

wherein the composite slab includes:

(i) profiled metal sheeting having pans and parallel ribs (7), with the sheeting positioned so that the ribs extend transversely to the longitudinal axis of the beam (as seen in the figures);

(ii) concrete cast on the sheeting (abstract); and

(iii) a reinforcing component (19) embedded in the cast concrete, the reinforcing component including a plurality of reinforcing elements, with the reinforcing component being positioned so that the reinforcing elements intersect the conical-type failure surface or surfaces as described herein in at least two different directions (as seen in figures 3-5).

Claim 2: The beam defined in claim 1 wherein the reinforcing elements extend a sufficient distance on both sides of each intersection point so that the elements are sufficiently well-anchored to develop tensile forces to prevent shear failure around the conical-type failure surface or surfaces (as seen in the figures).

Claim 3: The beam defined in claim 1 wherein the reinforcing elements extend a sufficient distance on both sides of each intersection point so that a similar failure surface cannot occur further away from the shear connectors (as seen in the figures).

Claim 4: The beam defined in claim 1 wherein the reinforcing component includes line wires and cross wires connected together at the intersections of the wires,

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with the line wires and the cross wires forming the reinforcing elements, and with the reinforcing component being positioned so that there are line wires and cross wires that have multiple points of intersection with the conical-type failure surface around each shear connector or groups of shear connectors in a pan (as seen in figures 1-5).

Claim 5: The beam defined in claim 1 wherein the reinforcing component is in the form of a mesh that includes line wires and cross wires that are connected together at the intersections of the wires, with the line wires and the cross wires forming the reinforcing elements (as seen in the figures).

Claim 6: The beam defined in claim 4 wherein the reinforcing component is in the form of a mesh formed from line wires and cross wires that are connected together at wire intersections, with the line wires and the cross wires forming the reinforcing elements, with the line wires having a zig-zag or "waveform" shape with peaks and troughs along at least part of the length of the line wires, and with the mesh positioned in relation to the ribs and pans of the profiled metal sheeting so that the cross wires are parallel to the ribs and are positioned in the pans and extend through the conical-type failure surface or surfaces, the peaks of the waveform line wires are positioned above the ribs, the troughs of the waveform line wires are positioned in the pans, and sections of the waveform line wires between the peaks and the troughs extend through the conical-type failure surface or surfaces (as seen in the figures).

Claim 7: The beam defined in claim 1 wherein the reinforcing component is in the form of a bar chair designed to be positioned to protrude through the conical-type failure surface at multiple points (as seen in the figures).

Claim 8: The beam defined in claim 1 wherein the reinforcing component is positioned so that a substantial part of the transverse reinforcement is located between 10% and 75% of the height of the adjacent ribs (as seen in the figures).

Claim 9: The beam defined in claim 1 wherein the ribs are open ribs (as seen in the figures).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/
Primary Examiner, Art Unit 3633

/J. L./
Examiner, Art Unit 3635